CONFERENCE REPORT
DOI: 10.1111/nbu.12078

Creative thinking as an innovative approach to tackle nutrition in times of economic crises

R. Verstraeten*,[1], M. Caraher[†], K. Raats[‡], J. L. Penalvo[§,1], F. Gomes[¶,1], R. Miller,[1] and C. Matthys[††,1] on behalf of the European Nutrition Leadership Platform (ENLP) Conference Group[1]**

*Nutrition & Child Health Unit, Institute of Tropical Medicine, Antwerp, Belgium;
[†]Centre for Food Policy, London City University, London, UK;
[‡]Creative thinking facilitator, Schoten, Belgium;
[§]Epidemiology and Population Genetics, Centro Nacional de Investigaciones Cardiovasculares (CNIC), Madrid, Spain;
[¶]Diabetes and Nutritional Sciences Division, School of Medicine, King's College London, London, UK;
**British Nutrition Foundation, London, UK;
[††]Department of Clinical and Experimental Medicine, Clinical and Experimental Endocrinology, Leuven, Belgium

The International Union of Nutrition Societies (IUNS) 20th International Congress of Nutrition, Granada, Spain, 15–20 September 2013

An interactive session 'Let's cook something up' organised by the *European Nutrition Leadership Platform* (ENLP – www.enlp.eu.com) during the 20th International Congress of Nutrition (ICN) organised in Granada, Spain, showed how an innovative approach to parallel sessions can be a meaningful tool in formulating solutions to current nutritional challenges.

The key objective of the session was to provide a proof-of-concept that even in the context of a large conference such as the ICN, with approximately 4250 attendants, one can utilise innovative and active learning techniques to get a message across and work towards solutions rather than using the traditional 'chalk and talk' method. There is a huge potential for innovation at these types of conferences in creating an environment that encourages interaction by breaking down the boundaries of authority and placing the focus on sharing knowledge with enjoyment. To provide such a proof-of-concept, the context of nutrition during times of economic crises was chosen to guide the session.

In a time of global financial austerity, public health nutrition faces huge challenges. Tonight, over one billion people on the planet will go to bed hungry; in the United States, 60 million people, mainly women, will go without a meal today, in the European Union (EU) this figure is 44 million with a further 80 million at severe risk of hunger (USDA 2009; Caraher 2011; De Schutter 2013). As food, fuel and housing costs rise, incomes remain stagnant thus placing great pressure on households to economise, and food is one way that this can be done (IBRD/WB 2012). But what has the profession of public health done to reflect the global austerity that has occurred following the 2007 global financial crises (Caraher 2011)? Is the best that public health nutrition can offer simply that of managing on a restricted income? Or can and should we go further and challenge the dominant food system to introduce changes towards a more healthy and equitable diet for all, in our daily work and life? As De Schutter (2011) points out 'The right to food cannot be reduced to a right not to starve. It is an inclusive right to an adequate diet providing all the nutritional elements an individual requires to live a healthy and active life, and the means to access them.' With food security we, professionally and individually, need to go further and engage with the determinants of nutritional outcomes, which are agrifood systems, food production, food processing, marketing, retail and food consumption.

Gathering 4250 people across all nutrition stakeholders (with an average estimated total cost of €6 162 500) is a major success in this age of austerity and offers great potential for the ICN to address the challenges of the current global crisis. Aside from attending a selection of lectures among the intense scientific programme, the majority of participants attending a conference are often engaged in *ad hoc* project meetings, job-related issues and networking. This is, of course, a fundamental part of a conference, but are we not missing an opportunity

Correspondence: Roosmarijn Verstraeten, Researcher, Nutrition & Child Health Unit, Institute of Tropical Medicine, 155, Nationalestraat, 2000 Antwerp, Belgium.
E-mail: rverstraeten@itg.be
[1]Member of the ENLP Conference Group.

here to go bigger? One way to think and act bigger is by facilitating a slot for brainstorming on pending nutritional issues that could attract a variety of profiles and levels of expertise with a common goal. More than ever, leadership, working in trans/inter/multidisciplinary teams, and – above all – creativity, are required in addressing the challenges we are confronted with. Creativity may be directed not only to find the best solution to a problem, but also to see the emerging opportunities to deliver a more creative, productive and eventually more innovative debate. Such an approach could give another dimension to our current problem-solving approaches and is particularly effective when: (1) one includes various stakeholders with different interests, as cognitive diversity (*i.e.* different educational, regional or functional backgrounds) contributes to group creativity, rather than ethnic, national or gender diversity *per se*; (2) the participants have a shared sense of purpose and a shared commitment to obtain the group's goal; and (3) one needs to address complex tasks as diverse groups perform better; heterogeneous teams produce more ideas than homogeneous teams (Kaufman & Sternberg 2010; Sawyer 2012).

Building upon previous experiences from the ENLP in the context of international nutrition conferences (*e.g.* IUNS or the Federation of European Nutrition Societies) the ENLP conference group aimed to develop a model for interactive sessions. Our model consisted of two parts: (1) an introductory lecture by Professor Martin Caraher from London City University – an expert in public health policy, combined with (2) a creative thinking session facilitated by Karl Raats – a specialist in creative thinking. The unique and innovative aspect of this session was that Professor Caraher provided the audience with both a theoretical background on nutrition in times of global austerity, along with some related challenges on this topic, after which hands-on techniques on creative thinking were used to formulate solutions to these challenges.

Professor Caraher highlighted that the world we live in is one with dominant influences on food choice by trade, economic trade liberalisation and profit (Schanbacher 2010; Monteiro & Cannon 2012; Carolan 2013). As such, our current world is built on a model of increasing food production for health, whilst sustainability and equity are not central to this model. This productionist paradigm sees human health best served by an efficient and productive food chain built on a model where the drive is one of profit and the growth of corporations. The proponents of this model claim it addresses food security, but this is only valid in terms of the production of the total amount of food produced and the claim does not address issues of access or rights to that food (Sen 1997). This is also underpinned by a global inequality, which a productionist model will not address and may even widen in a world where: 5% of humanity consumes 45% of all meat and fish, while the poorest 20% consume only 5% of all meat and fish.

After introducing this productionist model, Professor Caraher continued with an explanation of the concentration of power for the majority of foods grown and processed in Europe. The power and control are located with the supermarket 'buying desks' that determine the range, type and price of goods that eventually appear on the supermarket shelves. This has implications for growers and consumers and creates a funnel effect, with this process of concentrating power being repeated globally with respect to most commodities. It results in a concentration of buying power, with fewer buying desks and fewer outlets and less power in the hands of the grower (Monteiro & Cannon 2012), which in turn, results in the growing and production of more food, albeit that is not distributed equitably or accessible to all.

Professor Caraher then made the subject of his talk more specific and showed that globally, power is concentrated in a small number of companies; it is estimated that 20 major food companies control up to 80% of the global food trade (Lang *et al.* 2009). This concentration of power can be further represented by a North/South divide across the globe with the major international companies being based or originating in the rich North, controlling those who produce food and influencing the choices of those who consume food/drink (the industry calls this latter phenomena 'editing'). Box 1 provides some examples of these global divides.

Hence, key impacts of globalisation of the food system include: (1) development of huge multinational companies who control what is grown, where it is grown/distributed and prices; (2) loss of biodiversity; (3) homogenisation of culture; and (4) less emphasis on public health. Clearly therefore, the problem becomes one where public health nutrition concerns are subservient to those of business and trade. On the other hand, there are also problems when nutrition policy ignores or neglects to account for wider impacts such as those on the environment. Professor Caraher expressed that this is reflected in a paradox in food policy, which is left to our own devices: we will eat virtually all of what we like 'a lot', about half of what we like 'a little' and almost none of what we do not like 'at all' – this probably holds true at a national level as well as at a global level. This results in a narrower range of food alongside a loss of biodiversity as a smaller range of crops are cultivated.

Box 1: Some examples of global trade statistics

- The number of people living on less than $2 per day has risen since 1980, to 2.8 billion – almost half the world's population. Additionally, the number of people living on less than $1 per day is growing in most regions of the world (with the notable exception of China). As income increases, food price increases outstrip the benefit. So the increase from $1 to $2 per day as the global measure of food insecurity has not compensated for the increase in food prices.
- The world's poorest countries' share of world trade has declined by more than 40% since 1980 to 0.4% in 2001.
- The poorest 49 countries make up 10% of the world's population, but account for only 0.4% of world trade.
- Fifty-one of the 100 largest economies in the world are corporations.
- Poor countries lose about $2 billion (US dollars) per day because of unjust trade rules, estimated at 14 times the amount they receive in aid.

Source: adapted from De Schutter 2011 and 2013, World Trade Organization, see www.gatt.org/trastat_e.html.

Food insecurity

Professor Caraher continued by explaining that food poverty and insecurity in Europe is rising. In 2010, nearly one-quarter of Europeans (116 million) were at risk of poverty or social exclusion. This is about 2 million more than in the previous year and the first figures available for 2011/2012 confirm this trend. Within the framework of its Europe 2020 strategy, the EU has set itself the objective of reducing the number of people in or at risk of poverty or social exclusion by at least 20 million by 2020 (Eurostat 2013). Furthermore, the general trend is getting worse. The share of the EU population unable to afford a meal with meat, chicken or fish (or vegetarian equivalent) every second day – something that is defined as a basic need by the World Health Organization – was 8.7% in 2010 (*i.e.* more than 43 million persons) and the first figures available for 2011 indicate a worsening trend. The poor are more likely to be food insecure, eat an unhealthy diet and are more likely to be subjected to diet-related non-communicable diseases.

Furthermore, this inequality is global with the newly emerging economies facing a double burden of disease with want (hunger/stunting) existing side-by-side with abundance (diseases of lifestyle/obesity). If we think of the world as a global table with 10 people sitting down for a meal organised by nation, two are Chinese, two are Indian, one is from North East, Southern and Central Asia, one from South East Asia and Oceania, one from Sub-Saharan Africa, one for the remainder of Africa and the Middle East, one for Europe and the last one for South, central and North America. Yet, if organised by nourishment one is hungry, two are obese, more than half eat a mainly vegetarian diet, and one is a strict vegan. When organised by food consumption, America occupies three out of 10 seats (taken and adapted from Safran Foer 2009).

Like earlier movements in public health on tobacco and alcohol, the focus now needs to move towards looking at the power relationships of big food-producing companies (Tansey & Rajotte 2008). For too long public health nutrition has focussed on the food products, not the food chain or relationships of big food companies to supply/demand health outcomes (Moss 2013). Policy is not a logical process dictated solely by knowledge, rather it is a process, subject to lobbying and power influences, for which big food-producing companies have both the resources and experience to engage in, whereas public health nutrition lacks both (Moss 2013; Panjwani & Caraher 2013).

So where does this leave us?

Professor Caraher stated that the challenge for food policies is to find a space between the issue of protecting the environment and contributing to health, providing a just and fair food system for citizens, while also recognising that the food industry seeks to make a profit. Often this means finding solutions to the current dominant vertical global food supply system by looking at domestic production with more than an economic lens. More and more, this perspective is finding a voice in the growing food sovereignty and democracy movement (Wittman *et al.* 2011). Le Gross Clark and Titmuss said in 1939:

> There are only two further ways of making food more available. The first is to lower the price of foodstuffs upon the retail market; the second is to provide food to certain sections of the community through the medium of the social services. There is no reason, of course, why these methods should be mutually exclusive (Le Gross Clark & Titmuss 1939).

To conclude his introduction, Professor Caraher provided the audience with challenges worthy of considera-

tion in the following part of this session. Classic problem solving suggests three approaches:

(1) business as usual – stick to healthy eating messages and not get involved in these wider debates;
(2) ameliorate existing conditions by giving people knowledge and skills, but not change much about their social and economic circumstances;
(3) focus on preventing future problems and become more concerned with the social determinants that influence healthy eating.

Creative thinking

What is our role as public health nutritionists and how can we use the economic crisis as leverage for change?

The last part of this session was addressed using individual and collaborative creative thinking techniques, which were provided and explained by Karl Raats. The creative thinking concept challenges our current way of thinking. If we are to connect the dots, we need to first understand that everyone's knowledge, insights and experiences are the dots. This concept aimed to connect our unique, yet isolated ways of thinking, in order to create the critical mass in thinking power needed to confront and solve 21st century problems and challenges associated with nutrition.

Based on the challenges at hand, participants experienced a new and far more productive way to formulate, share and enrich ideas into collectively supported solutions. In three steps, participants: (1) learned how to reframe the challenge in order to reframe their thinking about it; (2) were able to give constructive feedback on ideas, regardless of their basic opinion about its quality or perceived validity; and (3) were challenged to voluntarily support and commit to their peer's ideas. Each of these steps were made possible by means of precise, tangible and reproducible instructions and/or tools presented in a booklet, shared with all participants. As such, participants could fall back on these techniques throughout the session, but more importantly in their daily lives.

Using the provided techniques and methods, some interesting thoughts/solutions came out of the session. Firstly, the participants interacted in different ways with each other. Secondly, some of the participants were confused by what their role could be in a global system with the current dominant food system and preferred the option of 'Business as usual – stick to healthy eating messages and not get involved in these wider debates'. The majority of the audience focused on ways in which to influence the system at a local, national or regional level, and wanted to contribute in their own way to these very different challenges. Some of these proposals were: (1) I will stop working as a scientist and start a fruit and vegetable shop with locally produced products; (2) I will change the way I organise my transport to work; and (3) I will convince my colleagues to consume not only a healthier but also a more sustainable diet. Many more options were proposed, but in general it was a starting point for many of the participants to begin to integrate three different aspects of food, namely health, sustainability and food safety.

Overall, the session showed that within the limits of a conference, parallel sessions can be organised in a different and productive way. Participants were surprised with the concept, generally in a positive manner, but sometimes with a negative perception. Based on the feedback that the organisers of the session received, one could deduct that the negative connotation originated from participants' dislike regarding the interactive aspects (*i.e.* participation, sharing thoughts and exposing their opinions to others). They preferred the classical *ex cathedra* colleges (*i.e.* literally, 'from the chair'), in which room for debate or interaction is much smaller. From the positive feedback received, the majority of the participants appreciated the new approach seeing it as: (1) 'a good learning opportunity'; (2) a surprise session; (3) a way of encouraging people to start making the changes in their own lives; and that (4) it provided inspiration and raised (participants') awareness on how to tackle problems in the future. All in all, the objective of the session was that knowledge is not simply transferred from one person to another, but rather is constructed within the person. The overall aim of the session was to activate the participants in the process of creative thinking by offering tools and methods with which the participants could control and apply.

Conclusion

The nutrition-related challenges highlighted by Professor Caraher in the interactive session are transdisciplinary. Clearly cross-talk between different professionals is needed to achieve a comprehensive approach to such complicated issues. Creativity is also fundamental for problem solving, and from the ENLP session, it can be seen that creativity is not a personal characteristic, rather a skill that can be facilitated and implemented by everyone. Overall, the creative thinking

concept can connect people further (*e.g.* industry with research) and can help one to visualise new solutions. It creates a comfortable environment for sharing, agreeing and putting ideas into action under the premise that a clear common goal is formulated. In essence, conferences are the ideal setting to create new and innovative ideas because they exhibit the diversity required to strengthen one's creativity.

ENLP aimed to provide proof-of-concept for an innovative approach to parallel sessions. We showed such an approach can be a meaningful tool in formulating answers to current nutritional challenges. We therefore encourage other initiatives and would recommend conference organisers to take up their responsibility and reorganise nutrition conferences to incorporate problem-solving sessions. As such, conferences could offer a double gain; bringing new knowledge and creativity together in solving nutrition-related challenges at hand.

Acknowledgements and source of funding

The authors would like to thank all of the participants who attended this session, as well as the ENLP for their financial support. Further information about ENLP can be found at www.enlp.eu.com. Roosmarijn Verstraeten, José Penalvo, Filomena Gomes, Rosalind Miller and Christophe Matthys are members of the ENLP Conference Group and organised this session on behalf of the ENLP.

Conflict of interest

The report does not necessarily reflect the authors' institutions' views or future policy in this area. All authors contributed to the discussions, the writing of this paper and reviewed and approved the content of the final manuscript. The authors have no conflict of interest to declare.

References

Caraher M (2011) Food austerity: a lifestyle choice for whom! *Journal of the Home Economics Institute of Australia* **18**: 17–25.

Carolan M (2013) *Reclaiming Food Security*. Earthscan from Routledge: London.

De Schutter O (2011) *The World Trade Organization and the Post-Global Food Crisis Agenda: Putting Food Security First in the International Trade System*. Office of the United Nations Special Rapporteur on The Right To Food. Briefing Note 04 November 2011. Available at: http://www.srfood.org/images/stories/pdf/otherdocuments/20111116_briefing_note_05_en.pdf (accessed 8 January 2014).

De Schutter O (2013) Right to food: The interim report of the Special Rapporteur on the right to food to the UN General Assembly. UN General Assembly, New York.

Eurostat (2013) *People at Risk of Poverty Or Social Exclusion*. Eurostat: Brussels.

IBRD/WB (The International Bank for Reconstruction and Development / The World Bank) (2012) *Food Prices, Nutrition, and the Millennium Development Goals*. The International Bank for Reconstruction and Development / The World Bank, Washington.

Kaufman JC & Sternberg RJ (2010) *The Cambridge Handbook of Creativity*. Cambridge University Press: New York, NY.

Lang T, Barling D & Caraher M (2009) *Food Policy: Integrating Health, Environment and Society*. Oxford University Press: Oxford.

Le Gross Clark F & Titmuss RM (1939) *Our Food Problem: A Study of National Security and Its Relation to Our National Defences*. Penguin: London.

Monteiro CA & Cannon G (2012) The impact of transnational 'big food' companies on the South: a view from Brazil. *Plos Medicine* **9**: e1001252. doi:10.1371/journal.pmed.1001252.

Moss M (2013) *Salt, Sugar, Fat: How the FOOD GIANTS Hooked Us*. Random House: London.

Panjwani CM & Caraher M (2013) The Public Health Responsibility Deal: brokering a deal for public health, but on whose terms? *Health Policy*. [publication Dec 3 2013; http://dx.doi.org/10.1016/j.healthpol.2013.11.002]

Safran Foer J (2009) *Eating Animals*. Hamish Hamilton: London.

Sawyer RK (2012) *The Science of Human Innovation, Explaining Creativity*, 2nd edn. Oxford University Press: New York, NY.

Schanbacher WD (2010) *The Politics of Food: The Global Conflict between Food Security and Food Sovereignty*. Prager: Santa Barbara, California.

Sen A (1997) *Inequality Re-Examined*. Oxford University Press: Oxford.

Tansey G & Rajotte T, eds (2008) *The Future Control of Food*. Earthscan: London.

USDA (United States Department of Agriculture) (2009) *Access to Affordable and Nutritious Food: Measuring and Understanding Food Deserts and Their Consequences*. United States Department of Agriculture, Washington. Available at: http://www.ers.usda.gov/media/242675/ap036_1_.pdf (accessed 6 December 2013).

Wittman H, Desmarais AA & Wiebe N, eds (2011) *Food Sovereignty in Canada: Creating Just and Sustainable Food Systems*. Fern Wood Publishing: Nova Scotia.